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ABSTRACT

A study was conducted to determine the feasibility of establishing a branch campus of Ocean County College (OCC) in southern Ocean County, New Jersey. Specific variables examined during the study included demographic characteristics; transportation systems, in terms of both public access and roadway networks; land usage; the history of education within the county; and public opinion drawn from three district samples of the southern Ocean County population, obtained through surveys of business firms, junior and senior public high school students, and a representative group of the general public 18 years of age or older. Research findings included the following: (1) business firms with 15 or more employees were very supportive of the expansion of college facilities; (2) 80% of the high school juniors and seniors and 92% of the general public sample indicated that a branch campus of OCC either "definitely" or "probably" should be established in southern Ocean County within the next 2 years; (3) the most preferred program areas were business, computer science, liberal arts, accounting, and real estate; (4) the population of southern Ocean County increased by 19.2% between 1980 and 1985, compared to a 13.1% increase for the northern part of the county; and (5) an estimated 200 to 250 students were anticipated for the first year of operation with a growth potential for 500 students within 5 years and 1,000 students by the year 2000. The results of the study supported the need for a southern OCC faculty. Survey instruments are appended. (LAL)

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THE NEED FOR A BRANCH CAMPUS OF OCEAN COUNTY COLLEGE IN SOUTHERN OCEAN COUNTY

September, 1986

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Office of Institutional Research
Ocean County College
Toms River, New Jersey

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ABSTRACT

The feasibility of establishing a branch campus of Ocean County College (OCC) in southern Ocean County was the focus of this research study. The term "branch campus" is used in a generic sense, not in strict accordance with New Jersey State regulations governing community colleges. In the context of this study, southern Ocean County was defined to include all municipalities in the county from Lacey Township south to Little Egg Harbor Township.

Specific variables examined throughout the study included; demographic characteristics (e.g., population trend analysis); transportation, in terms of both public access and roadway networks; land usage (e.g., developable land area); history of education within the county (both secondary and postsecondary); and public opinion drawn from three distinct samples of the southern Ocean County population. These samples included business firms, junior and senior public high school students, and a representative group of the general public 18 years of age or older.

Research findings indicated positive support for the establishment of a southern campus for Ocean County College. Business firms surveyed with 15 or more employees were very supportive of the need for expanded college facilities. Eighty percent of the high school juniors and seniors surveyed and 92 percent of the general public sample indicated a branch campus of OCC either "definitely" or "probably" should be established in

southern Ocean County within the next two years. Furthermore, if a southern site were established, the research indicates that a higher percentage of high school graduates and the general public would attend OCC than have attended in the past. High school students overall indicated a preference for attending courses in the morning, in contrast with the general public who preferred the evening time slots. Of those respondents showing an interest in attending courses at the proposed site, the most preferred program areas were business, computer science, liberal arts, accounting, and real estate.

The population of southern Ocean County has increased by an estimated 19.2 percent between 1980 and 1985, as compared with a 13.1 percent increase for the northern section. Population projections for the next 10 to 15 years indicate a continuous growth for southern Ocean County. By the year 2000, the population is projected to be 120,000 persons, a figure only slightly less than the entire county population when Ocean County College was first conceived in 1963.

The results of this study support the need for a southern Ocean County College facility. The facility should be operated both day and evening hours and offer an array of credit and noncredit courses, initially concentrating in the areas of business, computer science, accounting and general liberal arts. Based on current enrollment in OCC's southern Ocean County off-campus sites and results of this study, the proposed facility should be planned for an enrollment of 500 students. An estimated 200-250 students should be anticipated in the first year of operation with a growth potential to 500 students within five years and 1,000 students by the year 2,000. In order to

accommodate 500 students in courses previously noted, the facility should include six classrooms, two laboratories (one for computers and a second mult-purpose science laboratory), laboratory service space, office space for staff, and lounge/study areas. The facility must also accommodate physically handicapped students. The facility should have available approximately 200 parking spaces for students, staff and visitors. It is essential that library support services be provided for students. The reader should be aware that this proposed site cannot offer the full array of courses and services available at the main campus in Toms River. It is quite likely that a full-time degree student may take courses concurrently at both the proposed southern site and the main Toms River campus.

Based on population data, public transportation availability, road networks and geography, the proposed facility should be located within three to five miles of the Route 9 and Route 72 intersection in Stafford Township.

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CHAPTER I

INTRODUCTION

> Ocean County, the second largest county in New Jersey is located in the east central area of the state along the Atlantic Ocean. The county has 45 miles of ocean front and more than 150 miles of bay shore and estuaries. Toms River, the county seat, is centrally located in the county approximately 70 miles from New York City, 60 miles from downtown Philadelphia and 50 miles north of Atlantic City. Ocean County is easily accessible from major metropolitan areas via the Garden State Parkway and other major roadways.
>
> For the past three decades Ocean has been the fastest growing county in New Jersey. From 1950 to 1960 Ocean County's population grew by 91 percent and from 1960 to 1970 the population increased by 93 percent. During the decade from 1970 through 1980 the population grew by 66 percent for a 1980 census population of 346,038. County and State population projections show continued growth through the year 2000 when Ocean County's population is expected to reach 560,400. (p. 1)

This description of Ocean County, prepared by the Ocean County Planning staff in a 1984 trends report, provides an overall theme of past and future growth for the county. Upon further examination of this report and others, it is evident that population growth is anticipated throughout the county in all municipalities. However, it is also evident that the southern part of the county has perhaps the greatest potential for growth. Concern over this matter has created the support to examine the need for additional postsecondary educational facilities in southern Ocean County.

The purpose of this study is to analyze the need for the establishment of a branch campus of Ocean County College in southern Ocean County. The term "branch campus" is used in a generic sense, not in strict accordance with New Jersey State

regulations governing community colleges. Should the need for additional facilities be supported the study is to include a potential location for the facilities and cost estimates. Southern Ocean County is defined to be all municipal subdivisions of the county from Lacey Township south, as indicated in Figure 1.

Phase I of the study (i.e., feasibility research effort) included surveys of three separate samples of the populations: high school students, local area business firms, and members of the general public 18 years of age or older residing in southern Ocean County. Phase II encompassed a projected estimate of the attendant costs involved in starting and operating a branch campus. Completion of the second phase followed an inspection of phase I research results that were supportive of the branch campus concept.

Research questions incorporated in this study were presented to the southern Ocean County community in survey and interview formats. Specific concerns included: college aspirations of high school students, potential enrollment in a branch campus, business firm opinions toward the establishment of a branch campus and educational needs, program and/or course preferences to be offered at the new site, and other contributing factors such as preferred attendance time.

Profile

County of Ocean

Southern Municipalities

Number of Constituent
Municipalities - 13
Land Area, Square Miles - 261.76
1985 Estimated Population - 69,263
Percent of Ocean County
Population - 17.5

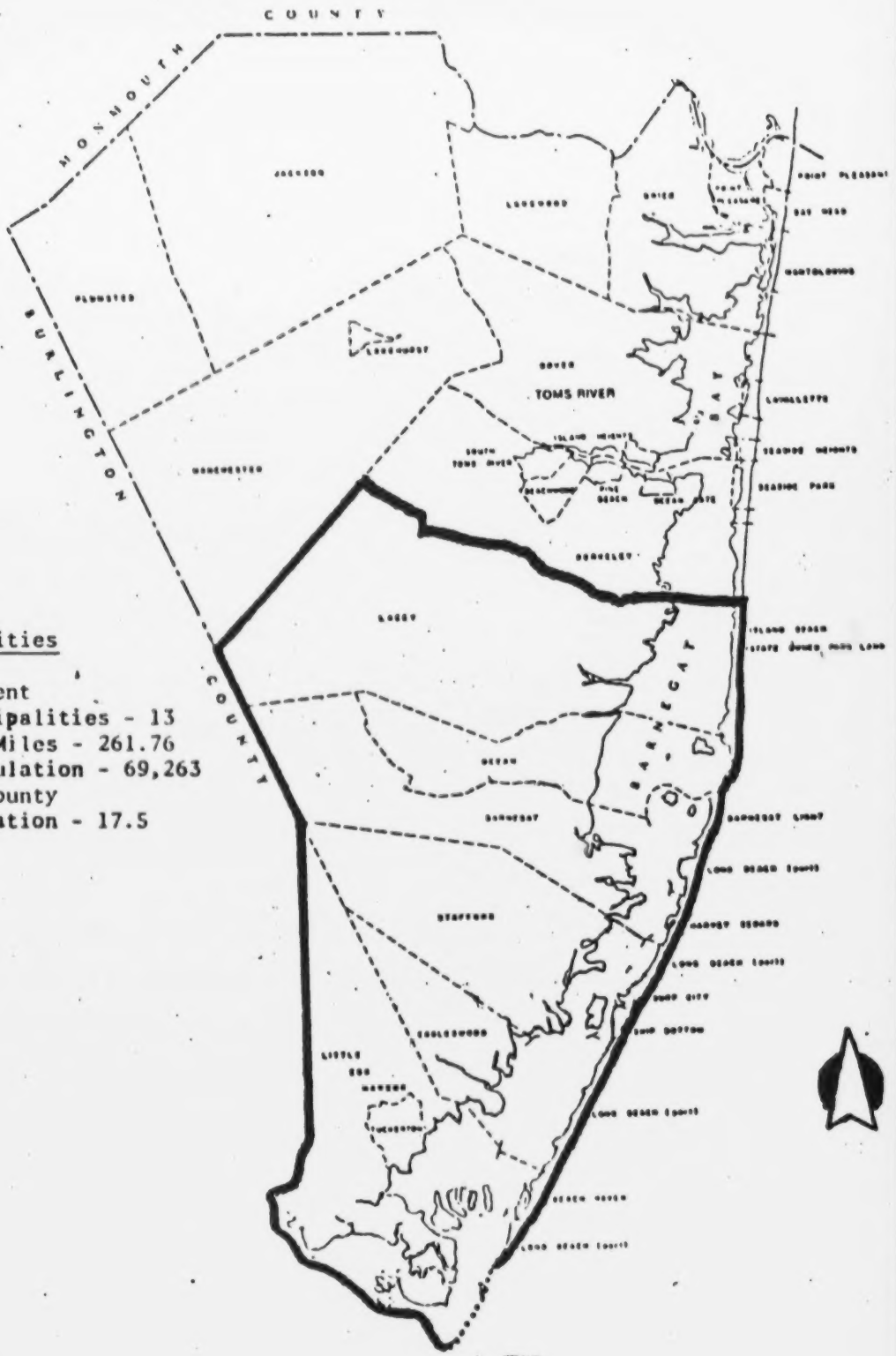

Figure 1 - A profile of Ocean County with Southern Municipalities outlined

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CHAPTER II

HISTORY AND FUTURE OF OCEAN COUNTY COLLEGE

History of Ocean County College

As documented in the 1986 Ocean County College catalog, the interest in establishing a facility for higher education in Ocean County dates back to 1957 when the Ocean County Board of Chosen Freeholders went on record favoring a study of the need for such a facility within the county. In accordance with the provisions of the New Jersey State Law of 1962, which enabled counties to establish and operate colleges, the Board of Freeholders authorized the completion of a feasibility study to determine the need for a two-year community college. The research indicated a need for postsecondary facilities and recommended that a two-year college for 900 students be established. Subsequently a study by the State Department of Education supported these findings. Thereafter the State Board of Education officially approved Ocean County's request to establish a two-year college and substantiated the ability of the county to support it financially.

On November 5, 1963, the citizens of the county approved the establishment of a college in Ocean County by public referendum. Shortly thereafter, on January 15, 1964, the Board of Chosen Freeholders adopted a resolution that established in Ocean County the first county college in the State of New Jersey, and on March 4, 1964, the nine original members of the Board of Trustees were

appointed.

The selection of the college president, the architect and the campus site in the fall of 1964 enabled the Board of Trustees and the administration to plan for the educational programs and the facilities to accommodate 900 full-time students. Key members of the administrative staff were appointed in September of 1965 to engage in the detailed planning necessary for the opening of the college in the fall of 1966.

By the fall of 1986 the college had an enrollment of more than 5,600 full- and part-time students. Many have taken advantage of the continuing education programs offered in the evenings and on Saturdays to study for a degree. Off-site locations facilitate study for those residing in remote areas of the county, (Ocean County College Catalog, 1986, p. 4).

Future Directions for Ocean County College

Guided by its philosophy, mission, and long-range goals, Ocean County College has established 17 strategic short-range goals toward which significant effort will be directed for the next several years. These goals are as follows:

1. The college will continue its process of academic program evaluation and strengthen it by focusing on student outcomes.
2. The college will expand its program articulation arrangements with New Jersey colleges and universities.
3. The college will broaden and expand student recruitment efforts, especially in the minority communities, and develop an overall marketing plan for all of its services.
4. The college will develop articulation arrangements with Ocean County high schools and the vocational school for the purpose of developing 2 + 2 tech-prep/associate degree programs and strengthening the high school/college connections.
5. The college will broaden higher educational opportunities

for the citizens of Ocean County, especially those living in the southern part of the county, by expanding its off-campus credit offerings.

6. The college will strengthen its relationship with Ocean County business and industrial groups through active advisory committees, the provision of training seminars and short-term courses where appropriate, and the establishment of communication networks.

7. The college will update, modernize, and/or construct new facilities to serve the needs of students.

8. The college will seek increases in state and county appropriations in order to implement the objectives established in its long-range plan.

9. The college will actively seek grants and gifts from both public and private sources to assist the college in achieving objectives established in this plan.

10. The college will create a process for a regular review of the implementation of strategic goals included in its long-range plan. The process will include a means of effectively linking the yearly ongoing planning and budgeting efforts. The process will also include appropriate communications with the various constituencies served by the college regarding its outcomes and its status.

11. The college will provide a program of professional development for its staff that includes opportunities for updating and refreshing skills, as well as for sensitizing the entire college community to the changing needs of the community we serve.

12. The college will improve its management information system through the acquisition of appropriate computer hardware and software and the training of college staff members in their use.

13. The college will make life-long learning opportunities available to an increasingly larger percentage of the county population through its community education program.

14. The college will strengthen its community service activities by making increased efforts to reach out into the existing county communities as well as continue to provide fine arts, cultural, and planetarium programs and facilities for public use. Efforts will be made to assist community agencies in solving community problems.

15. The college will provide increased educational opportunities in the fields of allied health, business, and new emerging technology programs and provide for the upgrade of its existing curricula to maintain technological excellence.

16. The college will address the problem of student retention by

strengthening student academic advisement and personal counseling programs, academic developmental programs, and by making a strong effort to involve a larger proportion of the student body in co-curricular programs and activities.

17. The college will promote an atmosphere which recognizes the changes that American society has undergone which necessitate unique affirmative actions to increase the hiring of minorities at all levels within the college and to achieve equality of educational opportunities for all minority citizens of the county.

The college is partially addressing the fifth and seventh goals through the efforts associated with this research study.

CHAPTER III

SOUTHERN OCEAN COUNTY - PAST, PRESENT, AND FUTURE

History

As described by the Long Beach - Southern Ocean County Chamber of Commerce (see Footnote 1): today's visitors to Long Beach Island (southern Ocean County) see a bustling summertime tourist industry including department stores, antique, specialty, and gift shops, restaurants, and most importantly, the activities associated with Barnegat Bay, the Atlantic Ocean, and 18 miles of clean, sandy beaches.

What is now known as southern Ocean County was originally inhabited by Indians whose relics date back to 300 A.D. During the latter part of the 1400's, the Lenni Lenape, or Delaware Indians brought their families to the area to enjoy the abundance of shellfish, waterfowl, and game. They were the first to use seaweed as a fertilizer, and cultivated many crops on both the Island and Mainland.

The first white inhabitants were the Dutch who established settlements from Cape May to Poughkeepsie around 1617. From Henry Hudson comes the first written account of the area while exploring in 1609 on his ship the Half Moon. He described the Great Bay, Little Egg Harbor, and Barnegat Bay as being "a very good land to fall in with, and a pleasant land to see."

Whales were being caught off the New Jersey coastline from Sandy Hook to the Delaware Cape as early as 1685. Early white

settlers to Long Beach Island were whalers who built lookout poles on the beach. When whales were sighted, the men were called to row out from shore after their quarry from one of three whaling stations on the Island. The farthest north was Harvey's Whaling Quarters, now known as Harvey Cedars. Three miles south was the "Great Swamp", or Surf City, the same distance south of which was Hick's Point Station. Larger whales were processed by the mother ship in deeper waters where the carcass could be turned easily, while smaller whales were towed to shore before they sank. Processing here left the beach strewn with huge bones bleaching in the sun.

Just before the Revolutionary War, Tuckerton reached its heyday as a main port of entry for trading ships from all over the world. Goods from local glassworks, charcoal manufacturers, bog iron furnaces, and salt works were distributed, and lumbering and shipbuilding became important industries. Tuckerton quite naturally grew into a center for privateers during the war. As there was no navy, privately owned ships were encouraged by the new government to capture British trading vessels. This created such a problem for the British that several small battles took place, such as the one at Chestnuts Neck in which Count Casimir Pulaski prevented the destruction of Tuckerton. A massacre in Barnegat Light of a group of patriots who had just seized a grounded British ship took place in 1782. Monuments to both events still stand as quiet reminders of a more adventurous past.

During the early 1800's, the whaling industry on Long Beach Island became less and less profitable, and a new means of living became necessary. The marshes and the ocean still had plenty of waterfowl and fish. At that time, the Island was covered with a

thick growth of red cedar and holly trees, as well as the usual shrubs and beach grass. These attributes combined to make Long Beach Island a sportsman's paradise, and it was from this beginning that the present resort industry grew. The following contains a brief outline of the southern Ocean County municipalities as can be seen in Figure 2.

Beach Haven

The Beach Haven School District Facility Plan (1985) describes the resort industry in Beach Haven as one of the largest and healthiest in New Jersey. The growth of the past two decades has been such that there is today little land available for new housing. Considered an environmentally sensitive coastal area, Beach Haven falls under the Wetlands Act and the Coastal Area Facilities Review Act, which both limit or forbid new development. Year round residents are involved in local businesses, the fishing industry, or commute long distances off the island to metropolitan centers. The year round population tends to remain stable at nearly 2,000, with a summer population of about 30,000.

A number of large, old homes once belonged to sea captains, and their heirs (in spirit and bloodline) still take to the high seas today. Barnegat Light supports quite a commercial fleet, and has become known as the "Tilefish Capital of the World" in honor of its number-one catch.

Harvey Cedars

Today, hundreds of years after the old whalers lived and worked in Harvey's Whaling Quarters, visitors enjoy the atmosphere of the quiet town where tall crow's nests once stood on the beach to watch for the giant mammals.

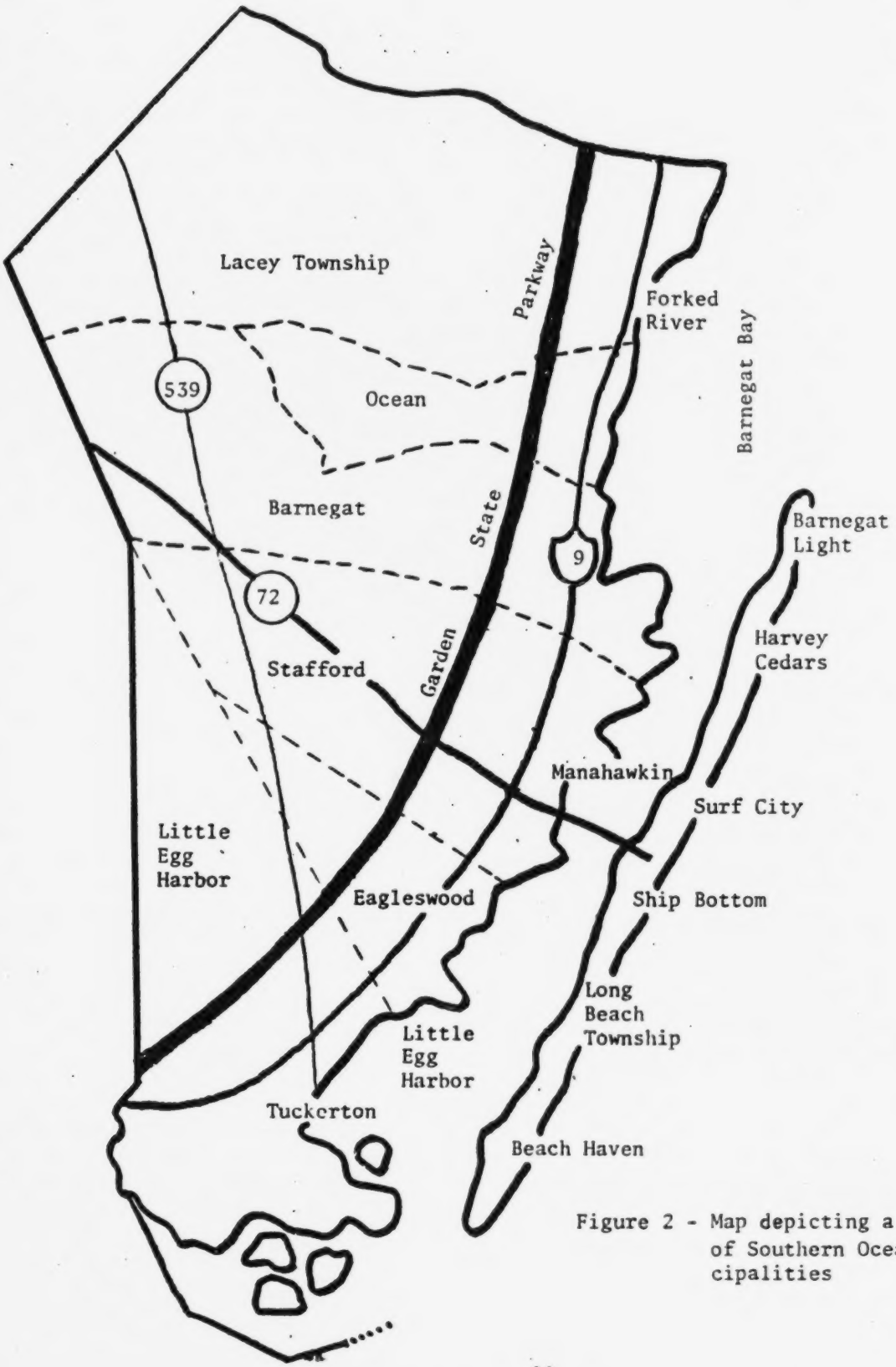

Figure 2 - Map depicting a simple outlay of Southern Ocean County Municipalities

Long Beach Township

The largest municipality on Long Beach Island, Long Beach Township is probably also the most residential. The township has 12 miles of clean, white beaches scattered throughout several communities: from the inlet and Holgate south of Beach Haven, to north Beach Haven, Spray Beach, Beach Haven Gardens, Beach Haven Terrace, Bay Vista, The Dunes, Haven Beach, Beach Haven Park, Peahala Park, Brighton Beach, Beach Haven Crest, and Brant Beach, all south of the causeway bridge. North Beach, Long Beach Park, Loveladies, and High Bar Harbor are all north of Surf City.

Ship Bottom

The Borough of Ship Bottom is nestled at the foot of the Manahawkin Bay Bridge, the causeway that links Long Beach Island with the rest of southern Ocean County. As well as attracting thousands of summer vacationers, Ship Bottom has lured a relatively high number of year-round residents.

Surf City

Primarily a family-oriented resort community, Surf City was probably the county's first seashore resort patterned after resorts along the English Channel.

Barnegat

The downtown area of Barnegat, originally Barendegat, is composed of gracious old Victorian and Colonial homes, with more modern housing developments, such as Settler's Landing, Pebble Beach, The Timbers, Windward, West Point at Barnegat, and parts of Ocean Acres surrounding. The town is a mecca for duck hunters and fishermen.

Eagleswood

With two major centers of population, West Creek and

Staffordville, Eagleswood Township has an estimated population of 1,089. The township has an area of 17.10 square miles, most of which is undeveloped.

Little Egg Harbor Township

One of the largest and one of the fastest growing areas in Ocean County today. It has a land area of 45 square miles and includes: West Tuckerton, Parkertown, Mystic Island, Atlantis, Holly Lake Harbor, Deerfield Park, Tuckerton Gardens, Spring Valley Lakes, portions of Warren Grove and other housing developments. The township has fine schools and churches, planned zoning, two volunteer Fire Companies, a First Aid Squad, doctors, dentists, and shopping areas. The AT&T terminus for the overseas cable to other parts of the Western Hemisphere is located in the township.

Ocean Township

Ocean Township with two centers of population, Waretown and Brookville, has an estimated population of 4,120. It is a growing municipality which attracts many summer vacationers as well as year-round residents.

Stafford Township

Stafford Township is one of the most rapidly expanding townships in southern Ocean County. Included in the municipality are Cedar Run, Warren Grove, Cedar Bonnet Island, Mallard Island and Manahawkin. Like most of southern Ocean County, this municipality runs along Barnegat Bay and for that reason is visited in summer by a great increase in population. Several large shopping centers in the area provide all the necessities, and for senior citizens, the Dial-a-Ride bus provides free transportation to all Stafford has to offer.

Tuckerton

The borough of Tuckerton as described by its school district's Long Range Facility Plan (1985) is a suburban shore community, surrounded by Little Egg Harbor Township and bordered by Tuckerton Bay. The borough encompasses 3.70 square miles with a density factor of 668 persons per square mile in 1980. The three year-old Pinelands Regional High School is located in Tuckerton and has become the site for entertainment supplied by the Southern Ocean County Cultural Society.

Lacey Township

Comprised of three districts - Forked River, Lanoka Harbor, and Bamber Lake. Lacey Township cuts across the middle of Ocean County, covering an area of approximately 87 square miles. As indicated by the names of all three districts, Lacey is surrounded by a great deal of water, making it a popular vacation spot for many New Yorkers and Northern Jerseyites. The Forked River, which has become the intake and outflow routes for the Oyster Creek Nuclear Power Plant, is on the southern border, and to the north, the township is bordered by Cedar Creek, one of New Jersey's purest and unpolluted water sources. On the east, Barnegat Bay provides access to the Atlantic Ocean. Because of federal and state legislation, much of Lacey Township is undeveloped; therefore, most of the 18,700 residents live in the Forked River section. Lacey has become a more desirable place to live in the past twenty years because of low tax rates, its proximity to the water, and its accessibility to major roadways such as the Garden State Parkway, Route 9, and Route 70, making it convenient for commuters, according to the Lacey Township school district (1985).

Population

A major deciding factor in the issue to conduct a feasibility study was an examination of Ocean County's population trends, as previously done by the study committee to explore the need for a county college in 1963. In their report (Ocean County College, 1963), it was indicated that a major factor in undertaking the original Ocean County College need survey was a 91.2 percent increase in area population between 1950 and 1960. Since that time, the population has grown from 108,241 in 1960 to approximately 400,000 in 1985 (270 percent change).

"By 2000, Ocean County population is expected to be 560,400". This heading appeared in the February 10, 1985 edition of the Asbury Park Press. The article proceeded to state that areas such as Stafford, Little Egg Harbor, Barnegat and Long Beach Twp., all located in southern Ocean County, are major contributors to this projection. For example, regarding Stafford Township, "with a large area designated as a regional growth district and the completion of sewerage in the Manahawkin area, substantial growth is expected with the area emerging as the commercial growth center for southern Ocean County", (Hinchcliff, 1985, p. A12). Long Beach Township will also expand rapidly due to many unused building lots. Housing pressures from Atlantic City will influence population growth in Little Egg Harbor Township, Tuckerton and Eagleswood Township. And, it is expected growth will continue in Barnegat and Ocean Townships.

Another example of projected future demographics comes from the June 13, 1986 issue of the Newark Star-Ledger: "Ocean's population is expected to double by the year 2000." Information for the article was obtained from research conducted by

Dr. Robert W. Burchell, Distinguished Professor - Rutgers University. According to Dr. Burchell, "One of the great things about Ocean County is that it is known for a vast amount of developable land. The transportation network is being improved and it has a good regional sewer system and excellent ground water - all attributes known to promote growth", (Coombe, 1986, p. 29).

Table 1 shows that during more recent years, southern Ocean County has begun to increase population at a faster rate than the northern municipalities and the overall county as a whole. The percent change between 1980 and 1985 for Ocean County was 14.1 while southern Ocean County was 19.2. The combined percent change for all northern Ocean County municipalities was lowest at 13.1 (this includes all Ocean County municipalities north of Lacey Township). The demographic growth becomes alarming when we view the estimated census for the year 2000 which will be close to 120,250 people for the southern Ocean municipalities. It would be reasonable to expect this remarkable growth to promote a demand for additional educational facilities.

Transportation

According to Righter (1983, p. 48), "One of Ocean County's greatest assets is its location. Far enough away from the expensive, crowded confines of the cities to preserve its natural character, yet close enough that transportation to New York or Philadelphia is quick and easy within an hours reach". In 1980, the Jersey Central Power and Light Company stated that "in addition to a well maintained local and county road system, Ocean County is serviced by the Garden State Parkway (GSP) toll road,

Table 1

Southern Ocean County - New Jersey
1985 Population Estimates

Municipality	1985 Estimate	1980 Census	80-85 %change
Barnegat Township	9,664	8,702	11.1
Barnegat Light Boro	730	619	7.9
Beach Haven Borough	1,986	1,714	15.8
Eagleswood Township	1,089	1,009	7.9
Harvey Cedars Boro	387	363	6.6
Lacey Township	18,688	14,161	32.0
Little Egg Harbor Twp.	10,480	8,483	23.5
Long Beach Township	3,769	3,488	8.1
Ocean Township	4,120	3,731	10.4
Ship Bottom Borough	1,563	1,427	9.5
Stafford Township	12,575	10,385	21.1
Surf City Borough	1,639	1,571	4.3
Tuckerton Borough	2,573	2,472	4.1
Southern Ocean County	69,263	58,125	19.2
Northern Ocean County*	325,677	287,913	13.1
Ocean County	394,940	346,038	14.1

Reproduced from: Ocean County Planning Board - Trends Report
Estimates reflect December 31, 1984 populations

Sources: United States Census Bureau,
New Jersey Department of Labor,
Building Permit Reports.

* Northern Ocean County is defined to be all municipalities in Ocean County other than the above 13.

and six state and federal highways, with one interstate route recently constructed" (chapter 7, p. 1).

Excellent roadway systems and highways running both north-south and east-west are easily accessible. The GSP provides rapid transportation between Ocean County and the New York City/Northern New Jersey metropolitan area, as well as providing an effective express connection between the northern and southern parts of the county. Routes 72 and 70 carry the main traffic between the Philadelphia/Camden area and southern and northern Ocean County respectively.

Bus services are available to the New Jersey/New York regions, the Camden/Philadelphia areas, and Atlantic City. Additional passenger services are available within the county, with schedules based upon the varying seasonal demands.

Trucking and motor freight is available from over 30 companies of which 13 have offices within the county, as reported by Porter (1984).

Today, according to Righter (1983), 2,225 miles of improved and well maintained local and county roads form an arterial network which serves the industrial, commercial, residential and recreational needs of the area.

In regard to the extension campus concept, Dr. Milton Shaw, President of Ocean County College, addressed the topic of transportation in Ocean County in his report to the Board of Trustees on May 27, 1986: "Although there is a relatively strong system of interconnecting roads, there is a definite lack of public transportation, as well as a time and distance factor, when moving from one extreme of the county to the other. For this reason, the college has extensively expanded those sites off

campus where credit courses are offered. Without the ability to provide additional personnel for the support of the existing off-campus sites, that outreach effort will ultimately fail" (p. 7). Conversely, with a branch campus located in southern Ocean County, the necessary personnel will be provided to support an outreach to our southern neighbors, and timely travel will become unnecessary.

Land Use

According to Dr. Robert W. Burchell, Ph.D., at the Center for Urban Policy Research - Rutgers University, in his report prepared for the Economic Growth and Development Seminar, June 12, 1986, "[Ocean County] is overwhelmingly residential in terms of both proportion of land parcels and property value. Neighboring Monmouth and Middlesex counties, for instance, have twice the proportion of commercial land parcels and ratables as does Ocean County," (p. 2).

Dr. Burchell continues by stating residential growth in the county is increasing rapidly by examination of the land use over the last ten years. Table 2 further exemplifies his research by breaking down land use in Ocean County for the years 1975 and 1985.

A large difference exists in the percentages of developed versus undeveloped land between northern and southern Ocean County. The northern municipalities contain a much higher proportion of developed land than do the southern areas. Tables 3 and 4 portray this difference with a breakdown of land usage by municipality.

Table 2

Ocean County, New Jersey
Land Use - 1975 and 1985

FISCAL YEAR 1985

Property Type	Number of Land Parcels	Percent of Parcels	Assessed Valuation ($000)	Percent of Assessed Valuation
Vacant Land	65,912	29.5	720,200	6.9
Residential	150,948	67.5	8,209,438	78.4
Farm	975	0.4	34,022	0.3
Commercial	4,895	2.2	1,039,216	10.0
Industrial	172	0.1	123,660	1.2
Apartments	581	0.3	345,084	3.3
TOTAL ALL TYPES	223,484	100.0	10,471,620	100.0

FISCAL YEAR 1975

Property Type	Number of Land Parcels	Percent of Parcels	Assessed Valuation ($000)	Percent of Assessed Valuation
Vacant Land	85,263	41.8	381,430	11.4
Residential	112,304	55.0	2,435,501	72.8
Farm	849	0.4	20,772	0.6
Commercial	4,319	2.1	318,765	9.5
Industrial	134	0.1	40,276	1.2
Apartments	1,073	0.6	148,460	4.5
TOTAL ALL TYPES	203,942	100.0	3,345,203	100.0

Source: New Jersey Department of Community Affairs, Statement of Financial Condition of Counties and Municipalities, 1985, 1975.

Reproduced from: Ocean County in the Year 2000: Demographic, Economic, Housing Trends, Prepared for the Economic Growth and Development Seminar, June 12, 1986, p. 3.

Table 3

Description of Land Use by Municipality
For Southern Ocean County Land Areas

Municipality	Developed Land		Roads, Public, Undeveloped Land		Total Land Area
	Acres	Percent	Acres	Percent	Acres
BARNEGAT	731.46	3.27	21604.57	96.73	22336.03
BARNEGAT LT	184.79	41.25	263.21	58.75	448.00
BEACH HAVEN	279.90	43.73	360.10	56.27	640.00
EAGLESWOOD	617.48	5.85	9942.52	94.15	10560.00
HARVEY CDRS.	176.88	50.25	175.12	49.75	352.00
LACEY TWNP.	1687.47	3.12	52456.53	96.88	54144.00
L.EGG HARB.	1728.87	5.46	29951.13	94.54	31680.00
LONG BEACH	946.91	34.41	1805.09	65.59	2752.00
OCEAN TWNP.	936.77	7.09	12260.03	92.91	13196.80
SHIP BOTTOM	230.30	50.68	224.10	49.32	454.40
STAFFORD	2406.84	7.70	27705.16	92.30	30112.00
SURF CITY	228.25	54.87	187.75	45.13	416.00
TUCKERTON	347.86	14.80	2000.97	85.99	2348.83
TOTAL	10503.76	6.20	158936.28	93.80	169440.06

Northern Ocean County
All Municipalities

NORTHERN TOTAL	58615.13	19.00	250627.30	81.00	309242.43

Source: Ocean County Planning Board; Ocean County 208 Project.

Table 4

Land Uses by Individual Municipality
for Southern Ocean County

	PERCENT OF LAND AREA				
Municipality	Residential	Business & Commercial	Indust.	Quasi-Public & Public	Other
BARNEGAT	1.77	0.43	0.91	12.47	88.09
BARNEGAT LIGHT	32.40	6.78	0.32	5.37	55.06
BEACH HAVEN	35.19	5.93	0.45	6.01	52.04
EAGLESWOOD	3.69	0.36	0.96	30.59	64.39
HARVEY CEDARS	39.72	1.09	0.49	9.21	46.64
LACEY TWP	1.18	0.11	1.62	16.19	80.88
LITTLE EGG HARBOR	3.41	0.04	0.78	26.08	69.09
LONG BEACH	30.29	2.26	0.45	0.22	64.81
OCEAN TWP	3.78	0.24	2.39	5.50	87.82
SHIP BOTTOM	38.80	7.55	1.63	2.71	49.31
STAFFORD TWP	4.55	0.67	1.63	16.04	76.81
SURF CITY	48.70	1.95	0.65	3.56	44.90
TUCKERTON	11.02	1.33	1.46	2.47	83.70

* OTHER category includes: Public Beaches, Private Beaches, Lakes & Streams, Vacant & Wooded, Agriculture (Cropland & Livestock), Highways & Streets.

Source: Ocean County Planning Board; Ocean County 208 Project.

It appears evident that a greater potential exists for development in southern Ocean County than the northern section, contributing to the need for a branch campus of Ocean County College. Furthermore, rapid development is expected to occur within the Stafford and Barnegat Township areas with the completion of a proposed sewer system and an easing of the Pinelands building moratorium; allowing subdivided property to again become buildable.

Enrollment Characteristics of the Three Southern Ocean County Area High Schools

The following information has been extracted from the long-range facility plans for Lacey, Pinelands, and Southern Regional School Districts. These plans are prepared pursuant to N.J.A.C. 6:3-1.23. It is noted that in predicting future school populations the possibility of error is always present. Accordingly, Lacey Township school officials (1985) have stated, "school population is generally affected by several factors such as: 1) the proximity of a community to a large industrial or commercial area such as a city; 2) the availability of employment in the community, or in nearby metropolitan areas; 3) the availability of transportation facilities which can be used for travel to and from work; 4) the availability of land for home or industrial development; and 5) local zoning ordinance, legal requirements and limitations which can both influence and dictate the type of development, the type of growth and the speed at which the growth occurs. Other factors affecting the estimation of future school population are changing patterns of adult population and private school enrollment" (pp. 40-41).

Numerous methods exist for projecting future student

enrollment. According to the Pinelands Regional School District (1985), the most widely used technique, considered to be most defensible, is the Cohort or Survival Ratio Method. This approach requires the acceptance of a series of assumptions that the circumstances and relationships which existed in the past will continue unchanged. The data generated by this technique will be reliable only to the extent that the assumptions upon which they are based continue to be valid. The computational process, however, enables predictions with a high degree of assurity for several years in advance.

Where community surveys reveal that anticipated housing activity from which school children are expected is significantly different from the pattern of the past five years, projections are adjusted accordingly. Speculation about future changes in the birth rate, cost, and availability of housing, changing patterns of school registration (e.g., public vs. private), retention factors, etc., are also used to determine alternate pupil populations.

Table 5 shows the projected 7-12th grade pupil enrollment for the three high school districts serving southern Ocean County. These projections developed during the 1984-85 school year estimate the pupil enrollment through 1989-90. Overall, the school districts were anticipating a mild growth in their pupil enrollment during the next several years. Actual pupil enrollment (7-12th) in September, 1985 was 5,021 with a projection of 5,299 for September, 1989; a 5.5 percent increase. The recent (1986) building boom should have a significant effect on these projections and it appears quite likely the projections may need to be revised upward.

Table 5

Projected 7-12th Grade Pupil Enrollment
for Lacey, Pinelands, and Southern
Regional School Districts
1986-87 through 1989-90

GRADE LEVEL/ SCHOOL DIST.	ACTUAL 1985	PROJECTIONS 1986	1987	1988	1989
7TH GRADE					
Lacey	232	253	270	262	324
Pinelands	193	212	226	233	223
Southern	267	277	327	287	319
8TH GRADE					
Lacey	255	254	265	283	274
Pinelands	213	183	220	235	242
Southern	274	301	270	319	280
9TH GRADE					
Lacey	309	300	281	294	314
Pinelands	242	240	207	249	266
Southern	537	435	443	450	493
10TH GRADE					
Lacey	267	303	293	275	307
Pinelands	202	248	226	195	234
Southern	484	435	388	394	401
11TH GRADE					
Lacey	274	259	294	284	267
Pinelands	184	204	226	206	177
Southern	397	457	406	363	369
12TH GRADE					
Lacey	212	242	244	277	268
Pinelands	137	205	212	235	214
Southern	342	370	413	367	327
SUB-TOTALS					
Lacey	1,549	1,611	1,647	1,675	1,754
Pinelands	1,172	1,292	1,317	1,353	1,356
Southern	2,301	2,275	2,247	2,180	2,189
TOTAL ALL DIST.	5,021	5,178	5,211	5,208	5,299

Source: Educational Facility Master Plans for Lacey, Southern and Pinelands Regional School Districts, 1985.

N.J. Dept. of Education, Sept. 30th Pupils on Roll, 1985.

CHAPTER IV

COLLEGE NEEDS OF SOUTHERN OCEAN COUNTY HIGH SCHOOL STUDENTS, AREA RESIDENTS AND LOCAL BUSINESSES

Follow-up of 1985-86 Southern Ocean County High School Graduates

Based upon data gathered from Ocean County College computer files and the N.J. Department of Education's "Consolidated Graduate Report . . ." for Ocean County, Table 6 shows that a significantly lower percentage of graduates from Pinelands and Southern Regional High Schools enroll at OCC than do graduates from the other county schools. These two schools are the county's southernmost high schools. In all likelihood, Lacey Township High School contributes a higher percentage due to its geographic proximity to OCC's main campus in Toms River.

Data obtained on the 1984 and 1985 Ocean County high school graduates show 52.1 and 55.8 percent, respectively, continued their education at the collegiate level the following academic year. Of those who went on to college, 40 percent attended OCC. In comparison with other Ocean County high schools, Pinelands and Southern had a somewhat lower college going rate for the '84 and '85 graduates and a significantly lower OCC attendance rate. The ratio of 1985-86 academic year enrollments at OCC to 1985 high school graduating class size for these two schools was 13:147 (8.8 percent) for Pinelands and 33:317 (10.4 percent) for Southern. The average percentage for Ocean County high schools was 22.3 percent.

Table 6

Number and Percent of Students Graduating from Ocean County High Schools for the Periods 9/1/83 - 8/31/84 and 9/1/84 - 8/31/85 Who Enrolled at OCC the Following Year as Either Full- or Part-time Students

	Number of Enrolled Students/Grad. Class Size	
	1984 - 1985	1985 - 1986
Brick Memorial	64/276 = 23.2%	71/277 = 25.6%
Brick Township	99/332 = 29.8%	73/313 = 23.3%
Central Regional	55/254 = 21.6%	45/204 = 22.0%
Jackson Township	77/368 = 20.9%	88/370 = 23.8%
Lacey Township	40/170 = 23.5%	42/190 = 22.1%
Lakewood	46/301 = 15.3%	37/270 = 13.7%
Manchester Twp.	33/140 = 23.6%	15/161 = 9.3%
Monsignor Donovan	61/242 = 25.2%	59/244 = 24.2%
Pinelands Regional	14/179 = 7.8%	13/147 = 8.8%
Pt. Pleasant Beach	24/109 = 22.0%	19/95 = 20.0%
Pt. Pleasant Boro	67/262 = 25.6%	59/245 = 24.1%
Southern Regional	41/363 = 11.3%	35/317 = 10.4%
Toms River East	107/472 = 22.7%	135/436 = 31.0%
Toms River North	97/400 = 24.2%	122/398 = 30.6%
Toms River South	67/293 = 22.9%	79/328 = 24.1%
TOTAL	892/4161 = 21.4%	890/3995 = 22.3%

NOTES: 1) Number of OCC enrolled students extracted from OCC computer files.

2) Number of high school graduates extracted from State of N.J., Dept. of Education "Consolidated Graduate Report: Follow-up of High School Graduates."

Table 7 shows the OCC recruitment rate for the '84 and 85' graduating county seniors as a percentage of those graduates who actually went on to college. These somewhat lower college going rates and OCC recruitment rates for Pinelands and Southern could perhaps be addressed by the establishment of a southern Ocean County College branch campus.

Student, Community, and Employer Interest in a Southern Ocean County Branch Campus

Survey Procedures and Sample Selection

In order to document the potential student demand and public support for a southern Ocean County College branch campus a research design was developed that included surveying the opinions of three separate groups. The subjects included in these three group were: high school students, local area businesses, and members of the general public 18 years of age or older residing in southern Ocean County.

The high school student sample consisted of 1078 pupils in their junior or senior year. The schools in the sample were: 1) Lacey Township High School, Forked River; 2) Pinelands Regional High School, Tuckerton; and 3) Southern Regional High School, Manahawkin. The student survey instrument (see Appendix A) was designed by Office of Institutional Research staff and pretested in an OCC statistics course. Surveys were delivered to all three schools on November 25, 1985, and retrieved November 28. Administration to students was undertaken November 26 and 27 during the morning homeroom period. Approximately 70 percent of the students currently enrolled in the three schools were represented. Surveying was conducted only once at each school,

Table 7

Proportion of 1984 and 1985 Ocean County High School Graduates Continuing their Education in College Who Enrolled at Ocean County College

High School	1984 High School Grads # to OCC / # to College	percent	1985 High School Grads # to OCC / # to College	percent
Brick Memorial	64/137	46.7%	71/161	44.1%
Brick Township	99/192	51.6%	73/195	37.4%
Central Regional	55/100	55.0%	45/100	45.0%
Jackson Township	77/166	46.4%	88/196	44.9%
Lacey Township	40/96	41.7%	42/105	40.0%
Lakewood	46/166	27.7%	37/142	26.0%
Manchester Twp.	33/68	48.5%	15/62	24.2%
Msgr. Donovan	*****	INFORMATION NOT AVAILABLE		*****
Pinelands Reg.	14/68	20.6%	13/51	25.5%
Pt. Pleasant Beach	24/82	29.3%	19/67	28.4%
Pt. Pleasant Boro	67/133	50.4%	59/148	39.9%
Southern Reg.	41/163	25.2%	33/135	24.4%
Toms River East	107/285	37.5%	135/297	45.4%
Toms River North	97/218	44.5%	122/228	53.5%
Toms River South	67/164	40.8%	79/191	41.4%
TOTAL	831/2038	40.8%	831/2076	40.0%

Data extracted from the Fall 1984 Consolidated Graduate Report: Follow-up of High School Graduates.

The total number of graduates does not include those who were reported as "status unknown".

therefore factors such as absenteeism and tardiness contributed in the unability to contact all students (see Table 8).

Business firms were selected from the 1985-86 Guidebook and Business Directory produced by the Long Beach - Southern Ocean Chamber of Commerce, 265 Ninth St., Ship Bottom, N.J. (1985). Businesses which employed 15 or more persons, as identified by a staff member of the Chamber, were selected from the directory. A survey instrument was developed for the business respondents (see Appendix B). The surveys were forwarded to an original selection of 116 organizations, of which 70 responded (60 percent response rate). Each was addressed to the "owner/manager" of the firm and mailed mid-month of December 1985. After a three-week grace period (by January 8, 1986), if no response was received, a follow-up memorandum accompanied by another survey was dispatched. The responding firms included 39 separate employer categories such as newspapers, banks, and real estate agencies as shown in Table 9. The average number of full-time employees within these firms was 35 (average part-time of 17). The average number of total employees was 51.

The general southern Ocean County public was surveyed using a structured telephone interview technique. A copy of the interview schedule is included in this study as Appendix C. Through mathematical derivation, it was determined, based upon population data, that a sample size of at least 382 subjects was needed to support (by theory) a randomly distributed selection with less than a 5 percent chance of sample bias. Population data was obtained from 1985 demographic estimations for southern Ocean County municipalities. A formula developed by the NEA Research Division (1960) (see Appendix D) was used to minimize

Table 8

Number of Students Enrolled in Southern Ocean County High Schools Versus Number Surveyed

School & Class	1985 Actual Enrollment *	Number Surveyed	Percent of Actual Enrollment
PINELANDS	321	186	57.9
junior	184	121	65.8
senior	137	65	47.4
SOUTHERN	739	529	71.4
junior	397	273	68.8
senior	342	255	74.6
LACEY TWP.	486	364	74.9
junior	274	204	74.5
senior	212	160	75.5
TOTAL	1546	1073	69.7
Juniors	855	598	69.9
Seniors	691	480	69.5

* Source: Ocean County Superintendent of Schools Office, September 30, 1985 Summary of Applications for State School Aid 1986 - 87.

Table 9

Number of Businesses Surveyed by Category
and Average Number of Employees

Business Category	Average No. of Employees	Percent of Sample	Number Surveyed
Air Conditioning	83	1.4	1
Apartment Complex	8	1.4	1
Apparel & Access.	66	1.4	1
Automotive	33	1.4	1
Banking	40	7.1	5
Community Center	73	1.4	1
Convalescent Center	118	2.9	2
Department Store	51	4.3	3
Food Market	225	1.4	1
Furniture	13	1.4	1
Hardware	41	1.4	1
Hotel	60	1.4	1
Insurance	23	1.4	1
Motel	70	1.4	1
Newspaper	30	5.7	4
Office Supply	13	1.4	1
Oil - Fuel	6	1.4	1
Personnel Consultant	5	1.4	1
Pest Control	27	1.4	1
Radio Station	34	1.4	1
Real Estate	33	34.3	24
Rental Service	32	1.4	1
Restaurant	62	4.3	3
Cocktail Lounges	84	8.6	6
Savings & Loan	7	2.9	2
Cable Television	18	1.4	1
Theatre	40	1.4	1
Tire & Muffler	8	1.4	1

Average No. Employed per firm: 51
Total Employed by all firms: 3580
Number of firms surveyed: 70

the magnitude of sampling bias (cited in Christensen, 1980). According to the NEA (1960), "The research division set as a minimum standard a sample of sufficient size to give an accuracy of plus or minus five percentage points with a level of confidence of 90 percent. This means the chances should be 9 in 10 that the answers reported (by the telephone respondents) do not vary more than five percentage points from the true opinion (of the general public)," (p. 99).

Telephone exchanges within the municipalities were used in concert with population data to obtain the percentages of the sample needed to evolve a systematic stratification of the 384 respondent sample. As shown in Table 10, exchanges associated with geographic locations were appropriated according to area populations. The number of interviews conducted within each exchange significantly correlated to the population density for that stratum (Pearson r=.986, p less than .05, n=384). This process was employed to assure equal representation of the entire southern Ocean County population. An extremely low probability exists of either over- or under-sampling any one area (standard error of estimate = 0.167).

Interviews were conducted on January 14, 15 and 16 of 1986, between the hours of 6:30 p.m. and 9:30 p.m. A structured procedure was followed by each interviewer during telephone contact, outlined in a direction package distributed to the 27 interviewers. A computer generated list (provided by OCC's Univac 90/80) of random phone numbers was enclosed in each package. This list furnished 66 numbers, of which at least 16 contacts were to be made in order to assure a total sample of at least 382.

Table 10

Telephone Exchanges within Southern Ocean County
Associated with Municipalities and Population

Telephone Exchange	Percent of Population	Associated Municipalities	Percent of Total Subsample
296	20.700	Eagleswood	1.700
		Little Egg Harbor	15.000
		Tuckerton	4.000
597	18.413	Ocean Township	2.013
		Barnegat	7.300
		Stafford Township	9.100
693	18.413	Ocean Township	2.013
		Barnegat	7.300
		Stafford Township	9.100
693	14.413	Lacey Township	12.400
		Ocean Township	2.013
971	12.400	Lacey Township	12.400
492	8.800	Long Beach Township	5.800
		Beach Haven	3.000
494	3.300	Barnegat Light	0.500
		Harvey Cedars	0.300
		Surf City	1.300
		Ship Bottom	1.200
361	3.300	Barnegat Light	0.500
		Harvey Cedars	0.300
		Surf City	1.300
		Ship Bottom	1.200

Percentages calculated at Office of Institutional Research, Ocean County College, Toms River, N.J. - extracted from population data obtained from United States Census Bureau and the Ocean County Planning Board.

In order to help in establishing a need for a branch campus, various questions were asked of the entire sample (all three subgoups). However, each survey differed slightly to accommodate the unique characteristics of the separate subgroups. Assessment was completed via dichotomous or Likert-type scalings using an objective questionnare format.

The aggregate of data was coded and entered into OCC's Univac 90/80 mainframe computer system and statistical routines were performed with the aid of a statistical programming package known as SPSS - Statistical Package for the Social Sciences, version 9.1 (Nie et al., 1975, 1981a, 1981b).

High School Student Survey Results

A high degree of optimism was shown in the students plans to continue their education beyond high school, into college. Forty five percent reported they definitely were going on to college, and 30 percent reported they probably were going. Of these same students, 21 percent were considering Ocean County College as a college choice, with two percent definitely planning to attend. However, if a branch campus were built near the Manahawkin area (Stafford Township), these figures increase to 33 percent and 7 percent respectively (an additional 125 raw positive responses). When we questioned only those students who were going on to college (n=801) if they would consider attending OCC and/or the proposed OCC branch campus, 26.5 percent responded positively toward the main campus and 36 percent responded positively toward the branch site. This major increase reveals a much stronger interest in OCC with the addition of a southern branch campus.

Regardless of the students responses to the previous

questions, they were asked "Do you feel there should be a branch campus of Ocean County College established in southern Ocean County within the next one or two years"? Responses to this question were extremely positive with 79 percent responding either "definitely yes" or "probably yes." Table 11 breaks this question down further by response percentage per school and class, portraying Pinelands Regional to be most supportive (85.2 percent) followed by Southern Regional (81.8 percent) and Lacey Township (73.7 percent). Some of the variation in these percentages may be explained via geographic distances from the schools to the main campus, i.e., Lacey being the closest and Pinelands the farthest.

Community Survey Results

The 384 southern Ocean County residents in the "general public" subgroup were questioned concerning their familiarity with Ocean County College (main campus - Toms River), in addition to questions concerning a proposed branch. Only three percent of the resident sample had not heard of Ocean County College. Fifteen percent had, at one time, enrolled in an Ocean County College course. This could be interpreted as either a college credit and/or Community Education noncredit course. Three in ten respondents had visited the college's Fine Arts Center and/or The Robert J. Novins Planetarium.

A substantially larger proportion of the public subsample responded positively toward attending a proposed branch campus site than attending the main college location. Four in ten were considering attendance at the main campus, whereas six in ten would consider attending the new site, if established in the

Table 11

Percentage Distribution of High School Student Responses to the Question, "Do you feel there should be a branch campus of OCC established in southern Ocean County within the next one or two years"?

School & Class	Definitely Yes	Probably Yes	Probably No	Definitely No
Pinelands	46.2	39.0	9.9	4.9
junior	37.8	24.2	6.6	4.4
senior	15.4	14.8	3.3	0.5
Southern	41.1	40.4	10.8	7.3
junior	20.7	21.5	6.3	3.7
senior	20.7	18.9	4.5	3.6
Lacey Township	30.2	43.5	12.2	14.1
junior	18.0	24.7	6.4	6.9
senior	12.2	18.8	5.9	7.2
TOTAL	38.4	41.2	11.1	9.2
junior	21.5	23.0	6.4	4.9
senior	16.9	18.2	4.7	4.3

Manahawkin area. Regardless of how the respondents answered the previous questions, they were also asked "Do you feel there should be a branch campus of Ocean County College established in southern Ocean County within the next one or two years"? Ninety two percent responded either "definitely yes" or "probably yes", including 73 percent who replied "definitely yes". Only three percent responded "definitely no" to this question. The community results broken down by telephone exchange can be found in Table 12, disclosing differences between geographic locations.

Business Firm Survey Results

Responses from the business firms also supported the establishment of an Ocean County College branch campus located in or near the Manahawkin area. Analysis indicated many of the southern Ocean County businesses contain positions requiring specialized or practical training acquired through community college education. On the average 14 positions per firm needed this training. The employers reported many of their personnel presently employed likewise could improve their job-related skills by taking college courses on a part-time basis. A greater percentage reported having special problems in obtaining qualified personnel (64 percent) than those who did not (36 percent). In most instances, the explanation offered for specific employment problems related to a lack of proper training for the particular position type, (see Appendix E).

When asked if a branch campus of Ocean County College should be established in or near the Manahawkin area within the next one or two years, the business firms responded with extreme supportiveness. Ninety-seven percent replied either "definitely

Table 12

Percentage Distribution by Telephone Exchange of the General Public Response to the Question, "Should a branch campus of Ocean County College be established in the Manahawkin area within the next one or two years"?

EXCHANGE	RESPONSE				n
	Definitely yes	Probably yes	Definitely no	Probably no	
296	62.5	22.5	8.8	6.3	84
361	33.3	44.4	11.1	11.1	10
492	83.9	6.5	3.2	6.5	33
494	100.0	0	0	0	8
597	79.0	16.1	0	4.8	66
693	71.0	21.0	4.8	3.2	66
698	73.6	23.6	2.8	0	76
971	82.1	12.8	5.1	0	41
TOTAL	73.0	19.0	4.4	3.6	384

*NOTE: Municipalities associated with telephone exchanges can be found in Table 10.

Confidence intervals (90 percent) about sample responses can be calculated via the formula in Appendix D.

yes" (76.1 %) or "probably yes" (20.9 %). Only three percent responded "probably no" and not one "definitely no" response was received.

Curricular Program/Course Needs & Preferred Attendance Time

Course preferences varied extensively throughout all subgroups. All three surveys included a question asking the respondent to indicate both first and second choice of preferred course/program to be offered at the proposed branch site. The choices most often selected were business-related instruction (19.7 percent), followed closely by computer science (10.8 percent). The first and second choices were very similar in percentage figures, however, the majority of respondents did not select a second preference (83 percent non-response) and, therefore that data has not been presented. Table 13 breaks down the top three first choices of program/course preference by individual subgroups. It must be noted, although 21.3 percent of the business firms selected real estate courses as a first choice, the business subsample consisted of 34 percent real estate agencies, explaining the higher ratio of first choice real estate programs.

Business firms were not questioned concerning desired class attendance time due to the responses reflecting an organizational response, not a response from a particular individual student or member of the public.

The preferred time of class attendance between the students and the "general public" was understandably inversely related, this factor being due to the students being accustomed to

Table 13

Top Three First Choice Program/Course Preferences
for All Subgroups Surveyed

GROUP	PROGRAM/COURSE		
General Public	Business 22.0%	Computer 14.0%	Accounting 7.0%
Business Firms	Business 25.2%	Real Estate 21.3%	Computer 11.4%
High School Students	Business 11.0%	Computer 7.0%	Liberal Arts 7.0%
Average of all Subgroups	Business 19.7%	Computer 10.8%	

Response rate to first choice question = 59 percent.

attending classes in the morning and the public needing classes in the evening due to work schedules. The large majority (73 percent) of high school students preferred morning classes as indicated (8:00 a.m. to 12 noon), as compared with afternoon (19 percent) between 12 noon and 6:00 p.m. or evening (8 percent) between 6:00 p.m. and 10:00 p.m. The preferred time of attendance with regard to the public sample was evening (71 percent) followed by morning (13 percent) and afternoon (11 percent) as seen in Table 14.

Results Summary

This project was conducted to determine if a need existed for a branch campus of Ocean County College in southern Ocean County. Descriptive analysis of the data has provided strong evidence of support for continuation of this research effort by proceeding into Phase II of the study. All three subgroups overwhelmingly supported the concept of the establishment of a branch campus. Results have provided evidence that a higher percentage of the southern Ocean County population will attend Ocean County College if a branch campus is established. Based on these positive findings of the survey research, the next section was completed to develop alternatives regarding facility requirements, site location, and administrative components associated with operating a facility in southern Ocean County.

Table 14

Percentage Distribution of Preferred Attendance Times at the Proposed Branch Campus for High School Students and General Public Respondents

School	PREFERRED ATTENDANCE TIME			
	Morning	Afternoon	Evening	Total
Lacey Twp.	70.1	19.2	10.8	32.6
Pinelands	67.7	21.5	10.8	18.2
Southern	76.2	18.3	5.6	49.2
TOTAL	72.7	19.1	8.2	100.0

Telephone Exchange	PREFERRED ATTENDANCE TIME			
	Morning	Afternoon	Evening	Total
296	11.4	4.5	84.1	19.6
361	50.0	50.0	0.0	0.9
492	30.4	8.7	60.9	10.2
494	40.0	0.0	60.0	2.2
597	12.8	7.7	79.5	17.3
693	17.1	17.1	65.7	15.6
698	13.5	9.6	76.9	23.1
971	32.0	20.0	48.0	11.1
TOTAL	18.2	10.7	71.1	100.0

*NOTE: Municipalities associated with telephone exchanges can be found in Table 10.

Confidence intervals (90 percent) about sample responses can be calculated via the formula in Appendix D. (general public sample only)

CHAPTER V

OPERATIONAL REQUIREMENTS

The space and staffing requirements associated with operating a college branch campus may be divided into initial startup needs and ongoing operations. The major factor undergirding an accurate assessment of space and staffing needs is the projected student enrollment the proposed facility may serve. This projection for space purposes, should anticipate the enrollment at least 5 years into the future, preferably 10 to 15 years.

Based on 1) the current population estimates for southern Ocean County; 2) the current proportion of students from Southern Regional, Pinelands Regional, and Lacey Township High Schools going on to college following high school graduation; 3) the student and community interest in a southern Ocean County College branch campus as previously documented in Chapter IV; and 4) the college's experience in successfully offering off-campus credit courses in southern Ocean County, it is estimated that between 200 and 250 credit students will register for courses at the proposed branch campus during its first year of operation. Furthermore, it is projected that given the proper facilities, staff, marketing techniques, and operational budgets, the student enrollment at the branch campus could grow to 500 students within five years of its opening and 1,000 students before the end of the century.

The proposed branch campus must be open during the day and evening, and eventually weekends in order to provide the maximum use of the facilities. Because the college will not be able to provide all the student support services, academic programs and courses currently offered at the Toms River campus, it is envisioned that students may have to travel to Toms River for some services. It is quite likely that a full-time student, (one taking 12 or more credits), would create alternate site schedules, e.g., Monday, Wednesday, Friday classes at the new facility and Tuesday, Thursday at the main campus. Essential to an effective academic program is library support. Although the Toms River campus library will be open to all southern students, it would be better if library resources were available either at the new facility or within a short driving distance. Since the Ocean County Library is considering the development of new, expanded operations in several southern Ocean County municipalities, plans should be developed to provide ready access to these proposed resources.

Site Location and Facility Requirements

Based on Ocean County population projections, public transportation availability, road networks, and geography, the proposed new southern Ocean County College facility should be located within a three to five mile radius of the Route 9 and Route 72 intersection in Stafford Township, (see Figure 3).

In order to accommodate 500 students in courses previously noted, the facility should include six classrooms, two laboratories (one for computers and a second multi-purpose science laboratory), laboratory storage/service space, office

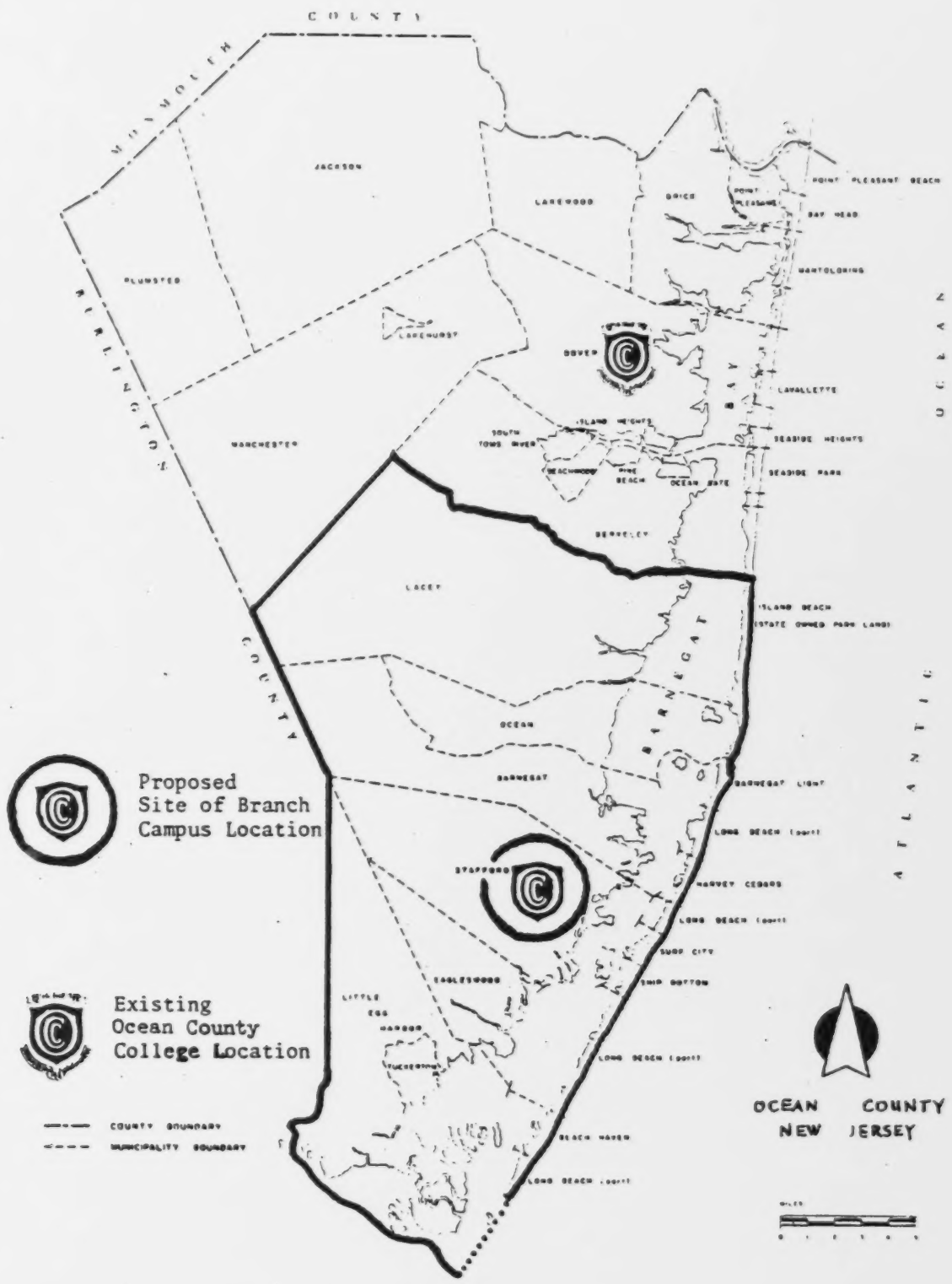

Figure 3 - Proposed site location for Southern Ocean County College Branch Campus

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space for staff, and a lounge/study area. The facility must also accommodate the physically handicapped student. Parking should be made available for 200 vehicles. Ideally, the facility should be located in an area that allows for possible expansion in future years. The following list details the net square feet needed in specific N.J. State higher education facility planning space categories.

Facility Planning Category	Net Square Feet (NSF)
Classrooms	
- Three 35 seat at 550 NSF	1,650
- Three 30 seat at 480 NSF	1,440
Laboratory	
- Computer laboratory (24 stations)	900
- Science laboratory for both biological & physical sciences (24 stations)	1,000
- Computer laboratory service space	250
- Science laboratory service space	400
Office	
- Three individual offices @ 150 NSF	450
- Clerical/reception open area	300
- Work room/storage area	250
- Faculty office space 2 @ 200 NSF	400
Lounge	
- Student/staff lounge space	500
NET SQUARE FEET TOTAL	7,440

Using a standard gross square feet to net square feet ratio of 1.50:1, the gross square feet of the proposed facility should be approximately 11,160. Gross square feet is defined in the N.J. State Facility Planning Manual to be the sum of the floor areas included within the outside faces of exterior walls for all stories, or areas, which have floor surfaces.

Included as Appendix F is a listing of the equipment needs

for the proposed multi-purpose science laboratory. Equipment needs should also be anticipated for the classrooms, offices, lounge area and computer laboratory. These needs are not described in this study.

Staffing Requirements

The number of staff needed to operate a branch college campus is also, like space needs, directly correlated with the number of projected students and hours of operation. Based on the high school student and general public survey responses, the facility should be open during the day and evening hours. In accordance with this research, it is recommended that the facility be operated initially, on a Monday through Friday basis, with morning classes beginning at 9:00 a.m. and evening classes beginning at 6:00 p.m. The facility could close at 9:00 p.m. After the facility has been in operation for at least one year, consideration should be given to expanding to weekend hours. Many colleges in New Jersey operate successful weekend programs.

Administratively, the proposed southern facility should have a director who reports to the Dean of Instruction. An assistant director would also be required to provide administrative coverage for all hours of operation. The title of "director" is used in a generic sense. Formal job descriptions and titles would have to be developed in accordance with existing college procedures.

In addition to administrative personnel, clerical personnel will be required for both day and evening hours. The clerical personnel should provide clerical services for both faculty and administrators, and also serve as general receptionists to new

students and visitors. Two clerical personnel will be required to cover the proposed hours of operation. Probably one full-time and one part-time will be sufficient initially.

The number of faculty required will be directly tied to the number of courses offered at the new southern facility. It is envisioned that some currently employed faculty will teach at this new site, however, it is quite possible that additional faculty will be needed. The exact configuration of faculty needs for the new southern site cannot be determined at this time.

Custodial services will be needed during the late evening hours and mechanical personnel should be available on an as needed basis. If administrative support is provided during all hours of operation, security support may be kept to a minimum. The type of facility and its location has an impact on security personnel staffing requirements. Since the exact location of the facility and its actual configuration has not be determined, the issue of security requirements also, cannot be determined at this time.

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Footnotes

(1). Information in Chapter III (history) obtained from Long Beach - Southern Ocean Chamber of Commerce 1985-86 guidebook and business directory (47th ed.) (pp. 20-93) by L. Feaster (Ed.), 1985, Ship Bottom, NJ: Long Beach Board of Trade. Copyright 1985 by the Long Beach Board of Trade. Permission granted to reprint.

APPENDIX A

OCEAN COUNTY COLLEGE
BRANCH CAMPUS
STUDENT INTEREST
SURVEY

Dear Student:

Ocean County College is considering the establishment of a branch campus in southern Ocean County, possibly in or near the Manahawkin area. If the need is documented, the branch campus would be designed, initially, to offer a limited number of courses and, possibly, complete certificate programs. Most likely, those students striving to earn an associate's degree would have to complete certain courses on the main campus, located in Toms River.

You can assist us document the potential student demand for a branch campus by taking a few minutes to complete this survey, regardless of your intentions to attend Ocean County College, attend some other college, or go to college at all.

Thank you for your cooperation,

Members of the Branch Campus Study
Committee

DIRECTIONS: Please circle the appropriate response for each question or complete as indicated.

1. Which high school are you presently attending?

   (1) Lacey Township (2) Pinelands Regional (3) Southern Regional

2. Are you a junior or senior?

   (1) Junior (2) Senior

3. Do you plan to go to college after graduating from high school?

   (1) Definitely yes (3) Probably no
   (2) Probably yes (4) Definitely no

4. Do you think you may attend Ocean County College?

   (1) Definitely yes (3) Probably no
   (2) Probably yes (4) Definitely no

5. If a branch campus of Ocean County College were established in or near the Manahawkin area, would you consider attending the college at this new site?

   (1) Definitely yes (3) Probably no
   (2) Probably yes (4) Definitely no

(OVER PLEASE)

6. Regardless of how you answered the previous questions, do you feel there should be a branch campus of Ocean County College established in southern Ocean County within the next one or two years?

   (1) Definitely yes
   (2) Probably yes
   (3) Probably no
   (4) Definitely no

7. If your response concerning enrolling in the proposed southern Ocean County College branch campus was "definitely yes", or "probably yes", please answer this question, otherwise skip to question 8.

   (a) What type of program or course would you like to see offered at the proposed branch campus?

   (b) What time of the day would you prefer to attend classes at the proposed branch campus?

      (1) Morning (8:00 a.m. to 12:00 noon)
      (2) Afternoon (12:00 noon to 6:00 p.m.)
      (3) Evening (6:00 p.m. to 10:00 p.m.)

8. Please offer us any comments or suggestions concerning the proposed branch campus. Also, feel free to comment about Ocean County College in general.

THANK YOU

APPENDIX B

OCEAN COUNTY COLLEGE
SOUTHERN OCEAN COUNTY
BRANCH CAMPUS SURVEY

Name of individual completing survey: _____

Date: _____

1. What is your organization's total number of employees? Full-time _____

   Part-time _____

2. Of this total, approximately how many positions require specialized or practical training which might be acquired in a community college? _____

3. Thinking ahead for the next few years, approximately how many job openings do you anticipate having? Remember to include estimated turnover and company expansion in your estimates.

Position Type	Est. # of New Employees 1987 F/T	1987 P/T	1988 F/T	1988 P/T
_____	___	___	___	___
_____	___	___	___	___
_____	___	___	___	___

4. How many persons already employed in your organization could improve their job-related skills by taking college courses on a part-time basis?

   Estimated # of employees _____

5. Do you have any special problems in obtaining qualified personnel?

   Yes _____ No _____

   If yes, please explain: _____

_____

_____

_____

_____

_____

_____

(OVER)

6. What would be your organization's attitude toward the establishment of a branch campus of Ocean County College in or near the Manahawkin area?

(1) Definitely yes ____ (3) Probably no ____

(2) Probably yes ____ (4) Definitely no ____

7. If your organization's attitude is favorable, what programs or courses would you consider desirable for the proposed branch campus? _____

_____

_____

_____

_____

8. Do you have any questions or concerns about Ocean County College in general?

If you endorse the concept of the college developing a branch campus in southern Ocean County, you can sssist us by developing a brief supporting letter and enclosing it with this survey in the attached envelope.

THANK YOU!

APPENDIX C

RESPONDENT ANSWER SHEET

Interview Name: _____ Date: _____ Respondent Tel. No.: _____

1. THANK YOU FOR AGREEING TO PARTICIPATE IN THIS SURVEY.

   THE FIRST QUESTION IS:

   HAVE YOU EVER HEARD OF OCEAN COUNTY COLLEGE? 1. Yes 2. No

If yes, continue with question 2. If no, skip to question 4.

2. HAVE YOU EVER ENROLLED IN AN OCEAN COUNTY COLLEGE COURSE? 1. Yes 2. No

3. HAVE YOU EVER BEEN TO OUR FINE ARTS CENTER OR PLANETARIUM? 1. Yes 2. No

4. FOR THE NEXT FEW QUESTIONS, PLEASE ANSWER EITHER

   1. DEFINITELY YES
   2. PROBABLY YES
   3. PROBABLY NO, or
   4. DEFINITELY NO

   DO YOU THINK YOU MAY ENROLL IN AN OCEAN COUNTY COLLEGE COURSE?

   1. Definitely yes
   2. Probably yes
   3. Probably no
   4. Definitely no

5. IF A BRANCH CAMPUS OF OCEAN COUNTY COLLEGE WERE ESTABLISHED IN OR NEAR THE MANAHAWKIN AREA, WOULD YOU CONSIDER ATTENDING THE COLLEGE AT THIS NEW SITE?

   1. Definitely yes
   2. Probably yes
   3. Probably no
   4. Definitely no

If the respondent answered, "definitely yes", or "probably yes", about enrolling in the proposed branch campus, please continue with question 6, otherwise skip to question 8.

6. WHAT TYPE OF PROGRAM OR COURSE WOULD YOU LIKE TO TAKE AT THE PROPOSED BRANCH CAMPUS? Record response: _____

   _____

   _____

7. WHAT TIME OF DAY WOULD YOU PREFER TO ATTEND CLASSES AT THE PROPOSED BRANCH CAMPUS? MORNING, AFTERNOON OR EVENING?

   1. Morning (8:00 a.m. - 12 noon)
   2. Afternoon (12 noon - 6:00 p.m.)
   3. Evening (6:00 p.m. - 10 p.m.)

(OVER)

8. REGARDLESS OF HOW YOU ANSWERED THE PREVIOUS QUESTIONS, DO YOU FEEL THERE SHOULD BE A BRANCH CAMPUS OF OCEAN COUNTY COLLEGE ESTABLISHED IN SOUTHERN OCEAN COUNTY WITHIN THE NEXT ONE OR TWO YEARS?

1. Definitely yes
2. Probably yes
3. Probably no
4. Definitely no

9. IF YOU HAVE ANY QUESTIONS OR CONCERNS ABOUT OCEAN COUNTY COLLEGE, OR WOULD LIKE TO KNOW MORE ABOUT OUR PROGRAMS AND COURSES, PLEASE FEEL FREE TO CALL US. OUR TOLL FREE TELEPHONE NUMBER FOR SOUTHERN OCEAN COUNTY RESIDENTS IS (609)693-5052.

10. THANK YOU VERY MUCH FOR ANSWERING OUR QUESTIONS AND HAVE A PLEASANT EVENING.

APPENDIX D

FORMULA DEVELOPED BY THE NEA RESEARCH DIVISION (1960) TO DETERMINE SAMPLE SIZE SO THAT THE LEVEL OF CONFIDENCE AND DEGREE OF ACCURACY WILL MEET THE REQUIRED STANDARD

$$\text{REQUIRED SAMPLE SIZE} = [\chi^2 N \rho (1-\rho)] \;/\; [d^2 (N-1) + \chi^2 \rho (1-\rho)]$$

where χ^2 = the table value of chi-square for 1 degree of freedom and desired confidence level (2.706)

N = the population size (approximately 70,000 persons)

ρ = the population proportion which it is desired to estimate (assumed to be .50 since this would provide the maximum sample size)

d = the degree of accuracy expressed as a proportion (0.05)

FORMULA TO FIND APPROXIMATIONS OF THE TRUE LIMITS OF THE POPULATION CONFIDENCE INTERVAL ABOUT THE SAMPLE

$$\text{the population proportion} = \frac{(\chi^2 + 2np) \pm z(\chi^2 + 4npq)0.5}{2(\chi^2 + n)}$$

where p = the sample proportion

χ^2 = the table value of chi-square for one degree of freedom at the desired level of confidence

z = the normal deviate corresponding to the given level of confidence

$q = 1 - p$

When the formula above is applied to the answers given to each question by all telephone respondents, we are 90 percent certain that the true opinions of the entire "general public" lie within the calculated limits.

Note: Taken from NEA Research Division. (1960). Small-sample techniques. NEA Research Bulletin, 38, 99-104.

APPENDIX E

SPECIAL PROBLEMS IN OBTAINING QUALIFIED PERSONNEL AS EXPLAINED BY BUSINESS FIRMS

"There are not enough good, well-trained sales people available who are willing to work in a small office enviroment"
REAL ESTATE FIRM

"In advertising we are seeking those who are familiar with personal computers and digitals, etc., for inputing ADV. Copy (word processors). Anyone with some good basic business skills - business math background, etc."
NEWSPAPER

"Entry-level clerical insufficiently trained in office procedures, communication skills, office equipment and computer literacy"
REAL ESTATE FIRM

"For professional and paraprofessional positions it usually means going out of the area to find qualified personnel"
COMMUNITY CENTER

"Secretarial - computer operators; not enough skilled people in the job pool"
RADIO STATION

"The automotive field is becoming more complex and the availability of training is scarce"
TIRE AND MUFFLER

"It is difficult to find people who can work with figures"
LUMBER COMPANY

"Automotive industry is very specialized. Personnel must learn how to learn"
AUTOMOTIVE

"Reliability, rusty skills, need for updated skills due to new types of equipment (i.e. equipment, w/p systems, switchboards, etc."
PERSONNEL CONSULTANTS

"I find many of the applicants cannot spell and need to improve their math along with their communication skills" BANK
"Many have little or no knowledge of accounting/banking procedures" SAVINGS AND LOAN
"There are not a great many people living in our specific area who possess the skills we require; such as qualified technicians such as sheet metal, plumbers, heating & appliance servicemen and estimators. We also require design and management, clerical workers, sales, computer operators and bookkeepers" AIR CONDITIONING
"Need employees with organizational ability, good business sense, dedicated to high quality performance" OFFICE SUPPLIES
"Primarily difficult is the hiring of experienced loan organization and loan servicing personnel" SAVINGS AND LOAN
"Due to specialization of several positions, it is difficult to find experienced help" CABLE COMPANY
"Qualified personnel in the culinary field, personnel management and sanitation in food industry difficult to obtain" COCKTAIL LOUNGE
"Secretaries with shorthand abilities are in very short supply" REAL ESTATE
"The area does not have appropriate facilities to educate staff. As a result, it is difficult to find qualified people" RESTAURANT

APPENDIX F

SCIENCE LABORATORY EQUIPMENT REQUIREMENTS

Laboratory (will serve biological & physical sciences)

1. 24 microscopes
2. 12 hot plates
3. complete set of prepared slides
4. set of charts
5. 6 balances (top loaders)
6. 1 refrigerator
7. 1 incubator
8. 1 aquarium wth pump & accessories
9. 1 hood
10. miscellaneous glassware, bunsen burners, chemicals, slides, etc.
11. materials for instruction in physics

Preparation Room

1. 1 hood
2. 1 balance
3. water purification system (distilled water)

NOTE: The above list does not include fixed equipment such as, tables, chairs, stools, cabinets, sinks, etc.

Natural gas, water, and electric must be available.

ERIC Clearinghouse for
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